MODIS TECHNICAL TEAM MEETING

December 1, 1995

The MODIS Technical Team Meeting was chaired by Robert Murphy. Present were Dorothy Hall, Al Fleig, Harry Montgomery, David Herring, Barbara Putney, Bill Barnes, Barbara Conboy, Bruce Guenther, Yoram Kaufman, Wayne Esaias, Ken Anderson, and Steve Wharton.

1.0 SCHEDULE OF EVENTS

Dec. 12	MODIS Quarterly Management Review at SBRC
Dec. 18	Level 1B software CDR at GSFC
Dec. 19 - 20	Calibration 1995 ATBD review at GSFC
Jan. 15, 1996	Semi-Annual Reports due
May 1 - 3, 1996	MODIS Science Team Meeting (tentative)
May 16 - 17, 1996	MODLAND-SDST Workshop at GSFC

2.0 MINUTES OF THE MEETING

2.1 Payload Panel Summary

Murphy began the meeting with a summary of the proceedings of the EOS Payload Panel Meeting. The announcement was made at that meeting that the National Academy of Sciences recommends that NASA proceed as planned with its EOS AM-1, PM-1, and CHEM payloads.

According to Murphy, Bob Harriss recommended streamlining the front end of EOSDIS, and that NASA should reconsider maintaining a federation of DAACs. With regard to streamlining EOSDIS, Wharton explained that Harriss' remarks were in reference to flight operations. There is no disagreement with what ESDIS is doing, but that they can/should do it less expensively and more autonomously. ESDIS is working to establish direct downlink stations, in case continuous broadcast in X-band becomes a problem.

Concern was expressed in the Payload Panel Meeting about the balance of the Mission to Planet Earth (MTPE) program with regard to science research and applications versus new technology. Murphy told the Team that the suggestion was made to implement a dynamic budget structure that changes priority on a 2-year cycle.

Harriss talked extensively about an integrated observing strategy for MTPE. Consistently, the New Millennium was described as a technology driven program. Yet, another new buzz word--"ESSP" (Earth System Science Pathfinder)--was used at the Payload Panel Meeting in a manner suggestive of striking a balance between new science and new technology.

2.1.1 Unified Test Data Set?

Murphy asked the Science Team representatives if obtaining a unified test data set is an issue for them. He pointed out that a unified ERBE data set is available from 1987. That year is important in that it offers a consistent data set that is coincident with other instrument data sets for validation purposes. Fleig responded that from SDST's perspective, it doesn't matter--any test data set that satisfies the Science Team will be sufficient for SDST. Esaias stated that the MOCEAN test data set will be from CZCS, primarily to test their algorithms' flow.

2.1.2 EOSDIS List of Concerns

Murphy reported that Dale Harris, in response to a circulating list of concerns facing EOSDIS, feels that the concerns are old and outdated. Harris plans to meet with Skip Reber periodically to work through and resolve these issues. Fleig asked for a copy of the list of concerns. Murphy asked the Science Team to issue a collective opinion statement on the list.

2.2 Zero-Base Review Cuts

Wharton stated that he is expecting a wave of zero-base review cuts to come in FY97. He expects the DAAC to experience some reductions in contractor staffing. He is working with the DAACs, and asks for input from the EOS instrument teams, to ensure that the DAACs understand their priorities for FY97 so that they may optimize their operations to address the higher priorities in the event there are reductions.

2.3 Beta Code Delivered

Putney announced that almost all MODIS beta code has been delivered to SDST and is now in the process of being passed along to the test team. She noted that two Atmosphere products are up to about a gigaflop in their processing size requirements. She finds this surprising.

2.4 Solar Reflectance Calibration Test

Barnes told the team that he is in the process of acquiring a heliostat for the solar calibration of MODIS at SBRC. The MODIS PFM will be taken into a another room (slightly less sterile than its current clean room) where a 4 foot square mirror will reflect sunlight onto the instrument as it shines through a hole in the wall. This room will be positively pressurized so that air flows outward to minimize the possibility of contamination of the instrument. Murphy asked if it is possible to clean the instrument if it gets contaminated. Barnes responded negatively. Guenther later stated that exposing MODIS to a less than clean room environment is a topic that needs further discussion.

2.4.1 Ambient Testing of MODIS Thermal Bands at Spacecraft Integration

Barnes reported that Tom Pagano and Ed Knight are in disagreement as to whether we should cool the MODIS thermal bands at spacecraft ambient testing.

According to Knight, a major part of the testing process is to look for compatibility between MODIS and other instruments on the spacecraft. This will require examining the thermal data for artifacts arising from the other sensors. Cooling during ambient requires use of the bench cooler which adds considerable complexity to the spacecraft level test fixturing.

2.5 MODIS Project Reports

Anderson reported that there are two major problems in the MODIS PFM electronics. One, the connectors were under crimped and must be replaced. SBRC is currently working on solutions to this problem. If they cannot retrofit the existing boards, then this could become a serious problem.

Two, SBRC received the hybrid integrated circuits from Sipex and reported that two of fifty apparently failed during shipment. SBRC is now working to find out why and to determine whether a sufficient quantity of good circuits remain.

Earlier, SBRC reported having problems with the scan motor encoder. This was found to be a problem with the test station and is considered resolved.

3.0 ACTION ITEMS

1. *Conboy:* Obtain and distribute the latest detailed EOS Calendar of Events.